

## CLAIMS

What is claimed is:

- 1           1.     A method for supporting frame priority in a home phone line network,  
2     comprising the steps of:
  - 3           (a)     detecting a limited automatic repeat request (LARQ) header in a frame with a  
4     priority tag;
  - 5           (b)     stripping the LARQ header and a frame check sequence (FCS) in the frame  
6     with the priority tag;
  - 7           (c)     recalculating the FCS for the stripped frame with the priority tag; and
  - 8           (d)     adding the recalculated FCS to the stripped frame with the priority tag.
- 1           2.     The method of claim 1, wherein the stripping step (b) further comprises:
  - 2           (b1)    placing information in the LARQ header in a frame status frame which will  
3     follow the stripped frame with the priority tag.
- 1           3.     The method of claim 1, further comprising:
  - 2           (e)     sending the stripped frame with the priority tag and the recalculated FCS to  
3     an Ethernet controller.
- 1           4.     The method of claim 3, further comprising:
  - 2           (f)     sending the stripped frame with the priority tag and the recalculated FCS to

an appropriate priority queue according to the priority tag.

5. A home phone line controller, comprising:

a first logic block for detecting a LARQ header in a frame with a priority tag;

a second logic block for stripping the LARQ header and a FCS in the frame with the priority tag; and

a third logic block for recalculating the FCS for the stripped frame with the priority tag and for adding the recalculated FCS to the stripped frame with the priority tag.

6. The controller of claim 5, wherein an asserted first signal to the first logic block indicates that the LARQ header is enabled and must be stripped from the frame with the priority tag.

7. The controller of claim 5, wherein the first logic block asserts a second signal and a third signal to the second logic block, wherein the second signal indicates that the FCS is to be stripped from the frame with the priority tag, wherein the third signal indicates that the LARQ header is to be stripped from the frame with the priority tag.

8. The controller of claim 5, wherein an asserted fourth signal to the third logic block enables the recalculation of the FCS.

9. A system, comprising:

2 an Ethernet controller; and  
3 a home phone line network controller, wherein the home phone line network  
4 controller comprises:  
5 a first logic block for detecting a LARQ header in a frame with a priority tag,  
6 a second logic block for stripping the LARQ header and a FCS in the frame  
7 with the priority tag, and  
8 a third logic block for recalculating the FCS for the stripped frame with the  
9 priority tag and for adding the recalculated FCS to the stripped frame with the priority tag.

1 10. The system of claim 9, wherein an asserted first signal to the first logic block  
2 indicates that the LARQ header is enabled and must be stripped from the frame with the  
3 priority tag.

1 11. The system of claim 9, wherein the first logic block asserts a second signal  
2 and a third signal to the second logic block, wherein the second signal indicates that the FCS  
3 is to be stripped from the frame with the priority tag, wherein the third signal indicates that  
4 the LARQ header is to be stripped from the frame with the priority tag.

1 12. The system of claim 9, wherein an asserted fourth signal to the third logic  
2 block enables the recalculation of the FCS.